



**ARENA PROJECT TEAM**

**Brunel House, Bristol**

**BRISTOL ARENA**

**Application 15/06069/F**

# **TRANSPORT UPDATE REPORT**

**March 2016**



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## **1 INTRODUCTION**

- 1.1 This report has been prepared in response to the issues raised by Bristol City Council Development Control Committee 'A' at the committee meeting on 2nd March 2016.
- 1.2 Members of Committee sought assurances on the proposed travel arrangements and the delivery of transport measures. In response to the issues raised, the following updates are included in this report:
- Walking routes
  - Cycling routes and cycle parking provision
  - Park and Ride
  - Service buses and ferries
  - Taxi and coach parking provision
  - Car parking
  - Parking management in residential areas
  - Public drop-off and pick-up
  - Stewarding and public safety issues
  - Wayfinding
- 1.3 This report addresses these points in turn. In addition, there are a number of plans accompanying the report which help illustrate the main points. Also set out in section 13 is a high level implementation plan and a provisional funding package.
- 1.4 A Framework Travel and Event Management Plan were submitted with the planning applications and are shown as ES Technical Appendix 7 in the online submission. This document explains progress that has been made since that initial report was written, taking into account the impact of traffic improvements that are due to be implemented at Temple Gateway and the Enterprise Zone (EZ).
- 1.5 Bristol Temple Quarter Enterprise Zone is a rapidly evolving area of Bristol and it is not possible to know how some aspects will change over time, particularly in terms of new highways infrastructure being built to serve various parts of the EZ as planning applications are submitted. The recently published draft Spatial Framework does, however, set out a longer term vision for the area. We can be sure that developments will take account of the Arena and allow improvements to be made from time-to-time on the basis of our experience of how the Arena operates and ties in with the general needs of the locality. See **Fig. 1** for the draft Spatial Framework which shows the longer-term vision for the area around Arena Island.

## 2 WALKING

2.1 Most attendees at Arena events will walk part of the distance to the site. The possible origins are:

- Temple Meads Station
- City Centre car parks
- Local bus stops
- The streets in the St Philips area
- Bristol City Centre
- Local residents

2.2 As shown in **Fig.2** the walking routes from southern areas will go via Three Lamps junction and use the new Southern Access. The small gate to Bath Road, close to the Southern Access will be closed for Arena events and visitors from the north will be marshalled to use Cattle Market Road (which will be improved with new lighting, widened pavement and new cycleway) so as to avoid the narrow pavement on Bath Road. The southern access will also be marshalled to prevent visitors leaving from that exit and then walking north along Bath Road. There are no plans in the short term to widen the narrow pavement on Bath Road as costs would be significant.

2.3 For major events Cattle Market Road will be closed except for pedestrians and cyclists, and when open for smaller events, will still have a wide, segregated footpath and cycle path to use, with only one lane of motor traffic. This will be a substantial improvement to the historic walking and cycling environment on this street.

2.4 From Temple Meads there are two routes of about equal length. It is expected that those who do not know the city well would use the road exit and walk along Cattle Market Road, while the alternative route along the Harbour Walkway would be more attractive to many. Both routes will be signposted as part of the legibility proposals with visitors encouraged to use the Harbour Walkway as this is away from traffic outside the station. Stewarding is also envisaged at the station. Examples of wayfinding street furniture are shown in Section 11.

2.5 A third route from Temple Meads in the longer term would be via the derelict site on Cattle Market Road and this would be substantially more convenient. However, this site does not yet have a programme for redevelopment and is not part of the current planning application, so has not been taken into consideration at present. The draft Spatial Framework proposes to open up the eastern access from Temple Meads through this site (see **Fig 1** Spatial Framework view from the east).



- 2.6 From Cabot Circus, Broadmead and Old Market Areas there are two routes. One along Temple Gate, which is currently being upgraded as part of a separate project; and the other via Valentine's Bridge and the surrounding network of minor roads and footpaths. In addition, the route along the Harbour from Valentine's Bridge to Castle Park provides access to the Broadmead/Galleries area.
- 2.7 From the Redcliffe area marshals and signs will direct people to use Cattle Market Road so as to avoid crossing Bath Road at unsuitable points, and to avoid the use of the narrow part of the pavement on Bath Road.
- 2.8 Within the St Philips area there will be a choice of two bridges; one from Cattle Market Road with a wide thoroughfare that will also take the limited number of vehicles that are allowed on the site, and a second bridge, accessed from Victor Street and the upgraded riverside walkway, for pedestrians and cyclists only.
- 2.9 For large events (to be defined in the Event Management Plan) part of Albert Road will be closed to through traffic, to ensure the safety of visitors travelling by coach, taxi users and pedestrians who are dropped-off and picked-up.

### Implementation

Measure/action	Timescale	Funding
Further refinement and submission of wayfinding strategy	To be submitted in December 2016 and then implemented by October 2017, allowing flexibility up to June 2018 for any changes	250,000
The implementation of Traffic Regulation Orders and improvements to footways, lighting and crossing facilities in St Philips area to link to arena island	Strategy programmed for September 16-February 17 and then implemented by February 2018.	480,000

## 3 CYCLING

- 3.1 An increased level of cycle parking is shown on the amended plan at **fig 3**. This constitutes a total of 440 spaces, meeting the Local Plan standard of 400 spaces for visitors and 40 for staff. This is a formal amendment resulting from the previous Committee. The 40 spaces for staff are located in the rear servicing yard, whilst an additional 180 cycle spaces for the public are provided immediately on the Island site.

- 3.2 This additional public cycle parking will be at the north of the site, adjacent the permanent disabled parking area and close to the main bridge. On event nights this will be the preferred means of entry for cyclists.
- 3.3 Cyclists will be able to use the Southern Access from Bath Road. In the initial instance this will involve walking down the steps using the wheel gully, or using the adjacent lift. On event nights cyclists would be expected to walk into the site wherever there are large crowds to navigate.
- 3.4 When there is not an Arena event the Southern Access will provide a reasonable degree of cycle permeability where there is currently none, and there will be a requirement for cyclists to use the wheel gully or the lift. Phase 2 will need to address further permeability.
- 3.5 The Southern Access will create the start of a new cycle route that would, over time, enable a continuous route to Cattle Market Road. Although this remains a longer-term aspiration and the line of the route will be protected, for technical and urban design reasons the completion of such a route is not part of the current planning applications. A provisional estimate of the cost of the new southern access is £3.6 M.

## Implementation

Measure/action	Timescale	Funding
Southern access - Further investigations into structural capacity of A4 retaining wall to inform detailed design of new southern access to site from Three Lamps junction	Work begun in February 2016	3,600,000 overall
Detailed design of southern access	In accordance with programme for Arena main contract	
Implementation of southern access	In accordance with programme for Arena main contract and completed for Arena opening, exact date to be confirmed when sequencing is known	
Cycle parking increased to 440	Will be available by arena opening in June 2018	Development

## **4 PARK AND RIDE**

### **Bus-based Park & Ride**

- 4.1 Since the Arena planning application was submitted, a new contract for the running of the Brislington and Portway Park and Ride sites has been awarded. From 4 September 2016 this new contract provides for:
- Evening services until 2330;
  - Sunday services until 1800 or later if required by Arena events;
  - Six buses serving Brislington and Portway Park and Rides to pick visitors up for 1 hour after the end of Arena events.
- 4.2 Although the Council can require the operator to run these extra services for any Arena event, in practice this will be subject to the detailed plans managed through the Event Coordination Group. The extra services will apply to events over a certain threshold, with consideration also for whether there are other events in the city, and the special needs of the Christmas period. At public consultation the threshold was suggested to be 9,000 visitors, but in the early stages of the Arena it will be set lower to allow for a more flexible approach that responds to patterns of demand and seasonal fluctuations in the demands placed upon the highway network.
- 4.3 Long Ashton Park and Ride will be served by the MetroBus operator. The current service will be replaced by MetroBus in 2017 so was not included in the Park and Ride contract referred to above. MetroBus is a commercial operation so any operator will be able to provide services on the route (subject to signing a Quality Partnership Scheme and Voluntary Partnership Agreement) and any special arrangements for the Arena will be made via the VPA. The current expectation is to have 4 services an hour ending at midnight, with additional buses for visitors to get back after Arena events. The applicant will be working with the public transport team to ensure that Arena requirements are taken into account.
- 4.4 Although it is anticipated that all Arena Park and Ride as well as MetroBus services from Long Ashton will be provided on a commercial basis, the developer proposes to set aside funding for such extra services as may be needed should the use prove more popular than expected. A provisional sum of £750,000 has been assumed (See Section 13). In addition, the Park and Ride Operator has stated that additional buses can be provided should these be needed.
- 4.5 Park and Ride bus stops and stacking areas are shown in **Fig 4**. Some services only have one stop as they follow circular routes.

- 4.6 The late night services will use the bus stop locations proposed for day-to-day park and ride usage, which will aid legibility for visitors. This is important as from September this year, the normal service of Park and Ride buses will be running until late into the evening. These stops are a short walk from the Arena. Stacking of buses would, of necessity, take place off the main stops. Buses would move onto the stops as each bus fills.
- 4.7 The developer had previously considered the option of creating new bus stops on Bath Road at Three Lamps junction but decided against this on safety grounds and to avoid confusion. The possibility of stops in this location was mentioned at Committee and has been reconsidered. As this would be subject to a Road Safety Audit a proposal could not be put forward at present, but it will remain under consideration as a potential enhancement measure for the Brislington Park and Ride. It should be noted that there are stops further along Bath Road which give access to the Arena via Albert Road and St Philip's bridge.
- 4.8 We estimate that the improvement to Park & Ride bus services for the arena will remove 640 car trips from the city centre network.
- 4.9 The expansion of parking facilities at bus-based park & ride sites will also help to address the Christmas peak, but it should also be noted that during the Christmas period additional temporary Park & Ride schemes, such as the UWE scheme, also operate for shoppers. Such matters will be discussed and agreed as a matter of course as part of the Event Management Coordination Group. In addition, the main operator in the City has confirmed that additional buses can be provided at peak times, both for Park and Ride and for normal services.
- 4.10 The selected operator of the new Park and Ride contract has indicated that it would be possible to have a ticketing operation that is combined with ordering of Arena tickets. However this is a refined detail which would involve arrangement and negotiation on the basis of a contract that does not start until September of this year. Therefore we do not consider that this is capable of being finalised at this stage or incorporated into a planning condition.
- 4.11 The operator taking over the new Park and Ride contract is planning to attend the forthcoming Committee to offer comments on the scheme. The operator wants to incentivise Park and Ride and will work with the Council and the Arena Operator to find the best ways of promoting it.
- 4.12 The completion of the MetroBus North Fringe to Hengrove Park route will provide a direct public transport route from the North of the city, along the M32 Motorway and into the city centre.



## Implementation

Measure/action	Timescale	Funding
Submit detailed P&R strategy	Strategy work from September 2016 to February 2017	In house staff
Contract from Sep 2016 ensures P&R provision for Arena events (Brislington & Portway)	From September 2016	Commercial operation
Take account of Arena requirements in award of Long Ashton P&R provision (MetroBus)	By 2017- exact date will depend on when award is completed	
Agree threshold for Arena operation with P&R providers	September 2016 and 2017	
Supplement commercially provided services if necessary	Ongoing	750,000
Review safety of possible bus stops on Bath Road	Pre-strategy submission completed before September 2016	
Evening services to/from Portway and Brislington commence as standard	September 16	
Real-time parking information in place	Strategy from September 2016 to December 2016, implementation finishes September 2017	50,000
MetroBus delivery provides smaller P&R facilities at various locations within Greater Bristol	2017	(Separately funded programme)
Event Coordination Group to use concert calendar to plan ahead with P&R providers	9 months prior to opening (September 2017-June 2018)	300,000 (contingency sum)

### Rail-Based Park and ride

- 4.13 The electrification of the railway main line creates the opportunity to provide a rail-based Park & Ride service from Parkway, which can be signed from the wider network and intercept trips before reaching the city centre. The new trains will be in service before electrification is completed, as they can also run on diesel, so they will be available prior to the Arena opening.



- 4.14 Great Western Railway has made an assessment of parking capacity and it is clear that there is adequate parking to cope with Arena-based trips given the profile of commuter parking at Parkway. Trips to the Arena can be accommodated by existing rail services as visitors will be arriving over an extended period. A late night shuttle will return visitors to Parkway after events end. GWR has written to confirm its support for this and a representative intends to address the Committee.
- 4.15 The developer estimates that this part of the strategy would remove a further 525 car trips from the city centre network.
- 4.16 In conclusion, there will be 4 Park & Ride sites available for arena use, three bus-based and one rail-based. This will give coverage from all the main approaches to the city centre. The number of car trips removed from the city centre is expected to be about 30% of the total demand.
- 4.17 In the longer term rail-based Park & Ride from the Portway site is, subject to further project development, programmed to link to rail services from 2019. MetroBus proposals will provide smaller park & ride facilities at various locations within the greater Bristol area. In addition, sites for additional Park and Ride facilities on key corridors are being pursued through the West of England Joint Transport Study.

## Implementation

Measure/action	Timescale	Funding
Continue liaison with GWR and Network Rail to secure Parkway later services	As part of consultation groups now underway for Strategy to be developed September 2016 –February 2017 and implemented by February 2018 subject to partners' timeframes	Commercial operation
Rail contingency if required	Strategy to be developed September 2016-February 2017 and implemented by February 2018 subject to partners' timeframes	100,000
Pursue opening of Portway rail P&R	2019	separate programme/business case
Pursue additional P&R sites through policy and strategy development and	Ongoing	Separate programmes

implement as funding becomes available		
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### Variable Message Signing and real-time parking

- 4.18 In liaison with Highways England, for all three Park and Ride sites and Bristol Parkway, the developer will implement Variable Message Signage alongside strategic approaches to advise drivers of the presence of the Park and Ride and also whether there is space available.
- 4.19 This information will also be available via a mobile phone application which is being developed over the next 24 months. Park and Ride should be the first choice for motorists. Bristol City Council is developing a technology-based, mobile platform that will alert drivers of parking availability at Park and Ride sites and for car parks in the city centre. Drivers will be alerted as to if car parks are near capacity and then divert to another.

### Implementation

Measure/action	Timescale	Funding
Agree locations for Variable Message Signage (M4, M5, A4, A37, and A370)	Strategy developed from September 2016 to December 2016 then implemented by September 2017	100,000
Implement highways signs linked to BCC Operations Centre	Strategy developed from September 2016 to December 2016 then implemented by September 2017	Existing budgets

## 5 SERVICE BUSES AND FERRIES

- 5.1 First Group confirm that they operate services in other cities which have arenas and their experience is that the regular bus services can carry a large volume of people without recourse to extra services. This is due to the fact that the origins of local Arena visitors are spread through many areas of the city.
- 5.2 Notwithstanding the above, when there is likely to be sudden demand for services (such as at the end of an Arena event) it is common for operators to provide duplicates of timetabled buses and this can be done on demand without recourse to the Traffic

Commissioner. We consider that the commercial opportunity is sufficiently great as to encourage operators to provide extra services at times of maximum Arena use.

- 5.3 Journeys from South East Bristol are accommodated by buses on Bath Road and Wells Road which stop at Temple Gate, including the Brislington Park and Ride. Services from Clifton and North West Bristol also serve the Temple Meads area. The south-western part of the city will be served by MetroBus.
- 5.4 Services from East Bristol are accessed via Old Market, which is about 15 minutes' walk. However, commercial operators can designate new services with notice to the Traffic Commissioner, and the Arena and the Enterprise Zone in general should produce sufficient demand to make such services commercially viable. There is a general desire to have buses from East Bristol to Temple Meads, both for Arena events and for general daily service. The developer is continuing to work with operators to provide a viable route.
- 5.5 Night buses also run to most parts of Bristol and these too can be provided with duplicates at times when demand is highest.
- 5.6 Representatives from the public transport operators will form part of the Event Coordination Group so that the appropriate pre-planning can be undertaken.
- 5.7 Ferry boat services currently operate routes from Cumberland Basin to Temple Quay, via the city centre Harbourside. For daytime shows, event goers will be able to travel by Ferry to the Temple Quay landing point, and from there use the Harbour Walkway to access Arena Island.
- 5.8 Discussions have taken place regarding the possibility of creating a further ferry landing point at Totterdown Basin. This may happen in the future; however, it is not a measure crucial to the success of the transport strategy for the arena. Late night Ferry services to cater for evening events are unlikely due to the relatively short distances involved and the need to move large numbers of people, but as with buses we can expect the supply to meet commercial opportunities provided by the presence of large numbers of people.

## Implementation

Measure/action	Timescale	Funding
Feasibility study of bus demand	September 2016 - February 2017	
Discussion with operators	March 2017-March 2018	

Contributions to bus enhancement capital measures / bus infrastructure	2018	300,000
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## 6 TAXIS AND COACHES

- 6.1 A new taxi rank to accommodate 10 taxis at any one time is proposed to be created at the top of Feeder Road, providing a short walk to the HCA Bridge. Additional taxi ranks can be provided on Avon Street, close to the Feeder Road/Avon Street junction. Ranks can face both north and south on this street. Together these ranks would provide space for 30-35 taxis, providing 45 in total for the Arena.
- 6.2 The expected taxi demand for a full event would be for 100 vehicles. The way that taxis queue and pick up in a flow suggests that 35 spaces would be easily sufficient to provide for this demand over a one hour period.
- 6.3 The provision of taxi ranks will have a beneficial effect on the area, in the first instance for the nearby Motion nightclub, and later on for other developments as they arise in the Enterprise Zone.
- 6.4 Coaches will drop off in a designated area on Albert Road, and this will provide a layover facility when there are up to nine coaches. In times of higher demand there is a layover area on Cumberland Road which is expected to reopen in January 2017. The City Council are currently investigating alternatives for coach parking as part of a wider study, and will consider the needs of the Arena as part of that work.
- 6.5 Comparison with other Arenas indicates that a provision of nine coaches is normally sufficient for the type of events that could be expected to be held at the Bristol Arena.
- 6.6 A provisional budget of £480,000 has been set aside to implement improvements to the Albert Road and Victor Street area and provide coach parking and taxi ranks etc. The scheme would be completed prior to opening of the Arena. All the above measures are set out in **Fig 7**.

### Implementation

Measure/action	Timescale	Funding
Submit general arrangement plan and timescale for legal agreement associated with the delivery of highway works, coach parking and taxi ranks in the Albert Road,	May - September 2016	480,000

Feeder Road, Avon Street, Stanhope Street and Victor Street area. To include upgrading lighting, footways and pedestrian crossing points as required		
TRO process	Jan 2017-August 2017	
Implement scheme	September 2017-April 2018	

## 7 CAR PARKING

- 7.1 Based on the mode share of other arenas being about 80% car, with a full attendance of 12,000 persons, there would be 3520 cars seeking parking (including Park & Ride).
- 7.2 These figures are based on a worst-case scenario. It does not take into account other circumstances, such as visitors who park at hotels and friends' houses, or in paid on-street spaces. The plan only shows car parks within 20 minute walk of the Arena. There are other car parking areas in addition to serve other uses such as shopping.
- 7.3 We expect Park and Ride sites and Bristol Parkway to absorb a total of 1165 cars, leaving 2355 to be accommodated on site and within the city.
- 7.4 The Transport Assessment shows the existing off-street parking supply within a 20 minute walking distance, with 18 large primary car parks and 7 other smaller but available sites (See **Fig 5**). Surveys were undertaken (March – May 2015) to monitor use at times when Arena visitors would be looking to park.
- Weekday evening capacity of 6,506 shows 2,000 spaces available at 5.00 p.m. but increasing to 4,500 by 6.30 p.m. On this basis the arena users can be accommodated in existing stock.
  - Saturday early evening produced similar figures with car parks only 60% in use at 5 p.m. providing circa 2,000 spaces available, with 3,700 available from 6.30 p.m.
  - Saturday daytime has the least provision with the busiest shopping time, and capacity is only in the region of 1,800, as 4,700 spaces are constantly in use. However, for Saturday daytime shows, full rail and bus services are in operation and their use would be encouraged.

- 7.5 Other areas that may provide for car parking are other private sites and the St Philips area, which is not busy in the evenings. Parts of this area will be controlled to ensure suitable access for taxi, coaches, drop-off and the operation of existing businesses.
- 7.6 There are other car parks within the city and surrounding areas that have not been considered as part of the Arena study as they are closed in the evenings or too far from the venue. These will be available for shoppers and visitors to other attractions as normal, and are not expected to be directly affected by Arena events.
- 7.7 Car parks will be linked to a mobile phone application so that drivers can be informed as to where spaces are available, to help prevent drivers circling the city when spaces are in high demand.
- 7.8 It is therefore considered that taking account of the reductions in car trips from the Park & Ride strategy, there is adequate capacity within existing car parking infrastructure to serve the Arena.

## Implementation

Measure/action	Timescale	Funding
Continue discussions with main car park operators.	Already part of a separate work stream.	
Agree proposals for TROs and parking restrictions in St Philips area to allow for coach parking, taxis, drop-off and businesses as part of detailed strategy		In house staff

## 8 PARKING MANAGEMENT IN RESIDENTIAL AREAS

- 8.1 The developer clearly recognises the potential for Arena visitors to park in residential areas. Without parking controls this would be a potential nuisance and inconvenience to local residents.
- 8.2 The areas identified for parking management measures are set out in condition 10 (See also **Fig 6**). Some of the areas identified have no measures in place that prioritise residents' parking. We will work with local neighbourhoods to explore various potential parking management options in those areas and to determine whether a new residents' parking area would be appropriate.
- 8.3 There are existing residents parking schemes at Southville, Bedminster East, Redcliffe, Easton & St Philips and Spike Island, which may need to be adjusted to cover Arena times.



- 8.4 The detailed programme will be drawn up in May 2016. It is clear from working through a draft programme that, subject to the statutory TRO process which cannot be pre-determined, parking management can be delivered within the two-year timeframe ready for arena opening. Discussions can take place with neighbourhoods early in the programme to explain the options available to them.
- 8.5 If it is considered to be appropriate to progress residents' parking in order to prioritise on-street parking for local residents and their visitors, Cabinet approval would also be necessary. This is also achievable within the two-year programme if required.

### Implementation

Measure/action	Timescale	Funding
Draw up detailed programme	May 16	900,000 overall
Informal Consultation with neighbourhoods	September 16	
Submit Strategy for parking controls in residential areas	December 16	
Making of TRO and formal consultation	2017 (indicative date)	
Implementation subject to TRO being confirmed	2017- 2018 (indicative dates)	

## 9 DROP-OFF AND PICK-UP

- 9.1 A number of zones in the St Philips area have been identified where drop-offs and pick-ups can be carried out. These are shown in **Fig 7**. These areas are mainly industrial and therefore late night pick-ups would be less likely to cause a nuisance.
- 9.2 It is recognised that parts of this area will require pavement and lighting upgrades. A provisional sum of money (£100,000) has been set aside to address such issues (see Section 13).
- 9.3 We expect that it will be most convenient for drivers to pick up at the same location as the original drop-off. However the zones will be marked/signed (final details in the event management plan) so drivers will be able to let Arena visitors know where they are. This will help to ensure that pick-ups are dispersed away from the vicinity of the site.
- 9.4 There will be special measures that can be put in place for specific events to create drop-off zones in convenient places, but these measures will be responsive to the type of event and be organised on a case-by-case basis as part of the events planning and coordination.



- 9.5 Disabled people (blue badge holders) who have not booked a parking space will be permitted on to Arena Island to be dropped off. There will be a turning area for this purpose. Depending on the size of the event they may need to have a schedule as to when they can be picked up afterwards.

## Implementation

Measure/action	Timescale	Funding
Submit general arrangement plan for drop-off areas, including one-way routes, signage, lighting, pavement improvements, TROs, as required.	September 2016-February 2017	100,000
Implement works in advance of Arena opening	March 2017-March 2018	

## 10 STEWARDING AND PUBLIC SAFETY

- 10.1 Stewards will be located on the highway and within the site to direct entry and exit, and to ensure that only permitted vehicles enter the site. The provisional location of stewards is set out in **Fig 8**. Exact details will vary according to the size and type of event and will be agreed as part of event planning and coordination.
- 10.2 People coming to the site from Temple Gate and Clarence Road will be directed to use Cattle Market Road so as to avoid use of the narrow pavement on Bath Road. The secondary Bath Road entrance to the site will not be open before or after events so as to discourage use of the Bath Road by Arena visitors. Timings will be agreed in advance.
- 10.3 Similarly people coming from Bath Road and Wells Road from the south will be marshalled to use the Southern Access rather than going down Bath Road to Cattle Market Road.
- 10.4 Longer term, there is an aspiration set out in the Draft Spatial Framework to widen the Bath Road footpath/cycleway. Such a scheme would be subject to feasibility work and funding being available.
- 10.5 Cars coming to the Arena but not permitted on the island will be turned away at the junction of Albert Road and Avon Street, so as to avoid a situation where drivers have to turn round in a crowded area.

- 10.6 Part of Albert Road will be closed to through traffic to avoid drivers dropping-off and then driving through the most crowded area of the highway. An alternative route will be available via Chapel Street to Feeder Road.

## Implementation

Measure/action	Timescale	Funding
Temporary road closures / management	September 2016- November 2017	250,000
Event Management Plan stewarding	Planning from September 2016 to November 2017 then implemented on Day 1 of Arena opening.	Operator

## 11 WAYFINDING STRATEGY

- 11.1 Wayfinding improvements for pedestrians and cyclists will be added to the city centre current signposting once agreed. A range of monoliths, map, directional posts and messaging will need to be updated to reflect the Arena and new signs introduced, particularly around Temple Quarter. This will take into account the location of main car parks, Bristol Temple Meads, bus hubs, pick-up/drop-off zones, taxis and coach parking and the main walking / cycling routes.
- 11.2 A provisional sum of £250,000 has been set aside to provide the wayfinding improvements with examples below.



Monolith signs



Direction posts



Street Maps



Digital information & mapping



Variable Message Signage

## Implementation

Measure/action	Timescale	Funding
Submission of updated wayfinding strategy and confirmation of new signs	To be submitted in December 2016 and then implemented by October 2017, allowing flexibility up to June 2018 for any changes	250,000

## 12 MONITORING AND INDICATIVE TARGETS

- 12.1 As part of the Travel Plan a set of strategies and soft measures to be carried out on a continuous basis throughout the life of the development will be devised. These are illustrated in Sections 6, 7 and 8 of the Framework Travel and Event Management Plan.
- 12.2 Targets will include a reduction in the use of private cars, Park and Ride usage, cycling, and walking and public transport provision.
- 12.3 A Travel Plan Officer will be appointed by the Operator. This must be around eight months prior to the opening of the Arena in order to ensure that measures required before the opening will be in place in time.
- 12.4 A Travel Plan is an evolving document which is updated on a regular basis. A common approach is to create a Framework Travel Plan prior to planning permission and a final

version as the development nears completion, though this varies from one application to another.

- 12.5 It can be anticipated that changes in the Enterprise Zone will, from time-to-time, make new facilities available and the Travel Plan will reflect this, so the version in use at the time of opening will be different from that produced initially.
- 12.6 There will be an Event Coordination Group set up to involve key stakeholders such as adjoining Council's, emergency services, Highways England, public transport representatives and operators including Network Rail, local representatives, and the arena operator to ensure strategic co-ordination in advance and to plan for multi events happening in the city at the same time.
- 12.7 The Group would also manage the monitoring of transport patterns for events that have happened and compliance with the Travel Plan.

## Implementation

Measure/action	Timescale	Funding
Submit Staff Travel Plan	Strategy September 2016 to December 2016, implementation as staff is recruited.	Operator
Set up Stakeholder Event Coordination Group; agree terms of reference, meeting schedule etc.	June 2017	300,000 Contingency sum

## 13 TRANSPORT IMPLEMENTATION, PROVISIONAL COSTS AND FUNDING

- 13.1 Although there is a two-year window to finalise the initial strategy schemes to ensure that everything is in place in time for Arena opening, the applicant is progressing with the programming and delivery of the works and strategies now. This will continue in earnest once planning permission has been granted.
- 13.2 A high level programme setting out timescales for responding to the requirements of the conditions is set out in **Fig 9**. The programme will be worked up in detail and submitted to the Council for approval once planning permission has been granted.
- 13.3 If planning permission is granted in April, it is intended that a Transport Coordinator will be recruited in June/July 2016 to work with council teams on the detailed requirements, including the submission of strategies leading to agreement of finalised

details, as required by the conditions. These detailed pieces of work will subsequently be submitted for approval as part of the Discharge of Conditions. The high level programme (**Fig.9**) shows that the strategies would be submitted between September 2016 and February 2017.

- 13.4 Working with other teams across the Council, the Transport Coordinator would also ensure that all the necessary highway works, improvements TROs, parking management and so on are in place in good time for Arena opening, as required by the conditions.

### Provisional costs

- 13.5 In respect of funding, a provisional assessment has been made of the likely costs of the transport proposals as shown in Table 13.1 below. The funding for this will be met from the original £91m approved by Cabinet for the project and the £28m approved for Arena Island infrastructure, or from existing service budgets. No further funding is required.

**Table 13.1: Provisional costs of transport measures**

#### Capital costs

Scheme	Indicative cost (£000s)
Parking Management in existing residential and industrial areas	900
Signage and Legibility	250
Highway VMS Signs	100
Public Drop off / pick up	100
Real Time Parking information infrastructure	50
A4 Bath Road Southern Access Bridge	3,600
Feeder Road / Albert Road / Victor Street & link to St Phillips improvements	480
Contribution to bus enhancement capital measures / bus infrastructure	300
Contingency for potential highway impacts.	390
<b>TOTAL CAPITAL</b>	<b>6170</b>

#### Revenue costs

Scheme	Cost (£000s per annum x 5 years)
Park & Ride evening services	750
Temporary Road Closures - Albert Rd and Cattle Market Road	250

Reduced mobility access solutions	100
Rail contingency	100
Travel Plan Co-ordinator (2 years)	80
Event Coordination Group contingency fund	300
<b>TOTAL REVENUE</b>	<b>1580</b>

<b>OVERALL COSTS</b>	<b>7750</b>
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## 14 CONCLUSIONS

- 14.1 This report highlights how the transport strategy has developed over the past 4 months since the submission of the planning application.
- 14.2 It provides certainty that the main priority of maximising Park & Ride use for the Arena is going to be provided via a combination of the existing contract renewals and also contingency funding to respond to the need for additional busses and services if needed. This will also deal with peak loads such as other events taking place in the city at the same time and at Christmas.
- 14.3 The plan is to utilise all three bus P&R sites and also to make use of rail based P&R at Parkway, through the use of additional late night trains returning to Stoke Gifford. This strategy will reduce the number of cars arriving into the city centre network.
- 14.4 The use of existing car parks and infrastructure within the city centre within a 20 minute walking distance of the Arena would be maximised, making best use of existing facilities with other city attractions and venues alongside the arena.
- 14.5 An important part of the plan is to consult upon and implement on-street parking controls. This is programmed for the next two years so that agreed schemes can be in place prior to Arena concerts starting.
- 14.6 A range of locations have been identified for P&R stops, general stops, taxi, coaches and dropping off facilities. To ensure that these operate effectively, physical improvement works are proposed around the Arena site to widen pavements, improve crossing points and enhance lighting.
- 14.7 Whilst the arena is being constructed there will be an appointed Travel Plan co-ordinator and an Event Co-ordination Group to ensure that all the above programmes are finalised and agreed and then implemented. This will also provide a robust strategy for stewarding and operations procedures to ensure crowd safety developed in

conjunction with the operator. As well as capital budgets, revenue funding has also been identified.

- 14.8 The provisional budget of £7.75 million also includes contingency elements to ensure a successful day 1 opening of the arena and funding to monitor and address any localised implications that may arise. The funding for this will be met from the original £91m approved by Cabinet for the project and the £28m approved for Arena Island infrastructure, or from existing service budgets. No further funding is required.
- 14.9 All the identified measures also combine with other committed schemes that will be available for arena opening: Cattle Market Road, Temple Greenways, Temple Circus, and MetroBus.
- 14.10 All partners and agencies such as Bristol City Council, GWR, bus operators, Network Rail, BTQEZ are working together to refine the details over the next two years, to ensure a successful opening and operation of the arena in transport terms.



## Scenario testing for key sites in the core area

- 1 Temple Gate** (comprising the Island Site, Temple Circus and Temple Gate)
- 2 Temple Meads North** (comprising The Friary, Plot 6 and Isambard Walk)
- 3 The Cattle Market** (comprising the Former Royal Mail Sorting Office, Cattle Market Road and the proposed Harbour Walkway)
- 4 Arena Island** (comprising the Diesel Depot site, bridge links and part of Bath Road)



Core area - aerial view from east



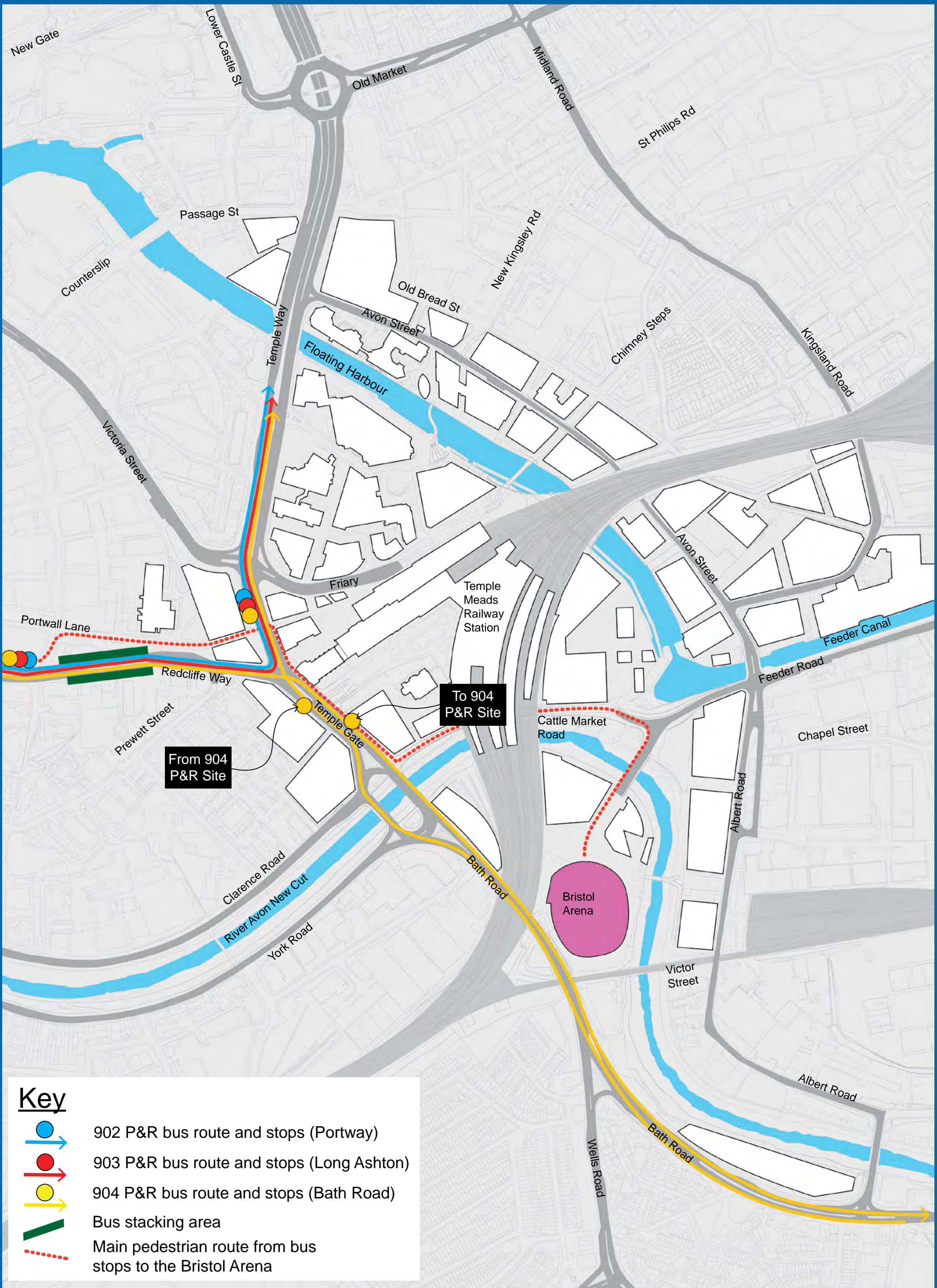


Fig 2 Cycle / Pedestrian / Bus stop links

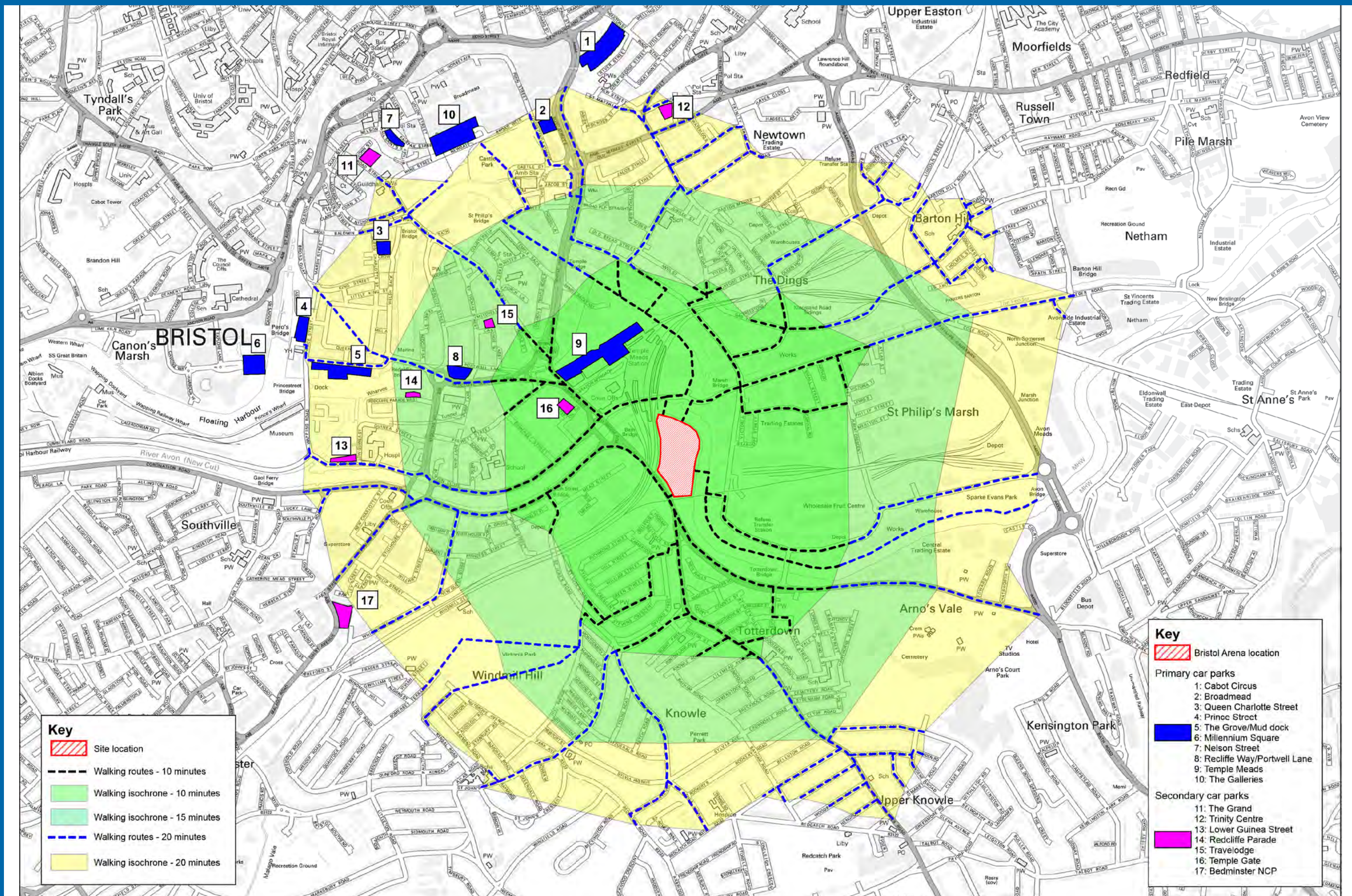




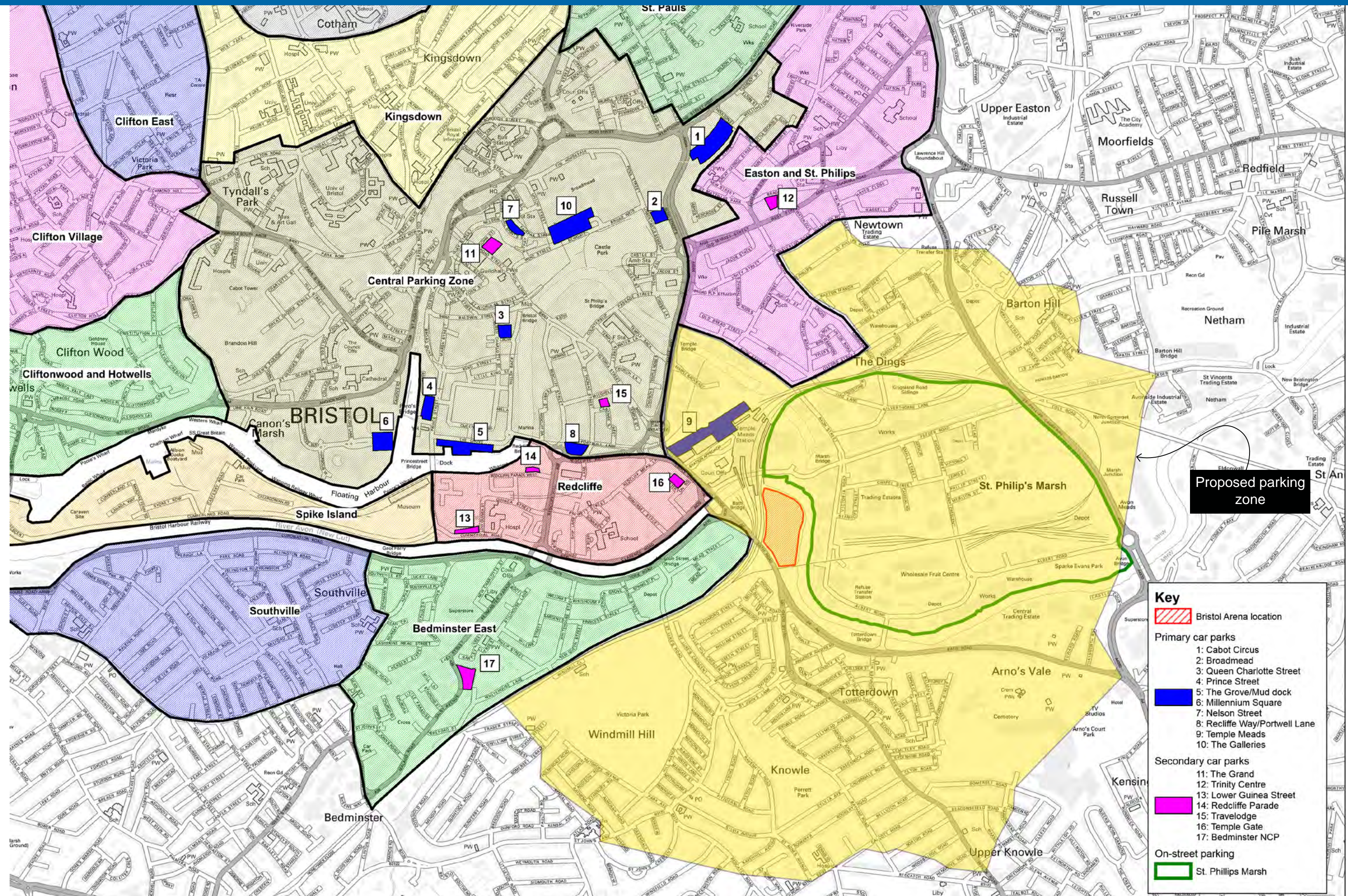














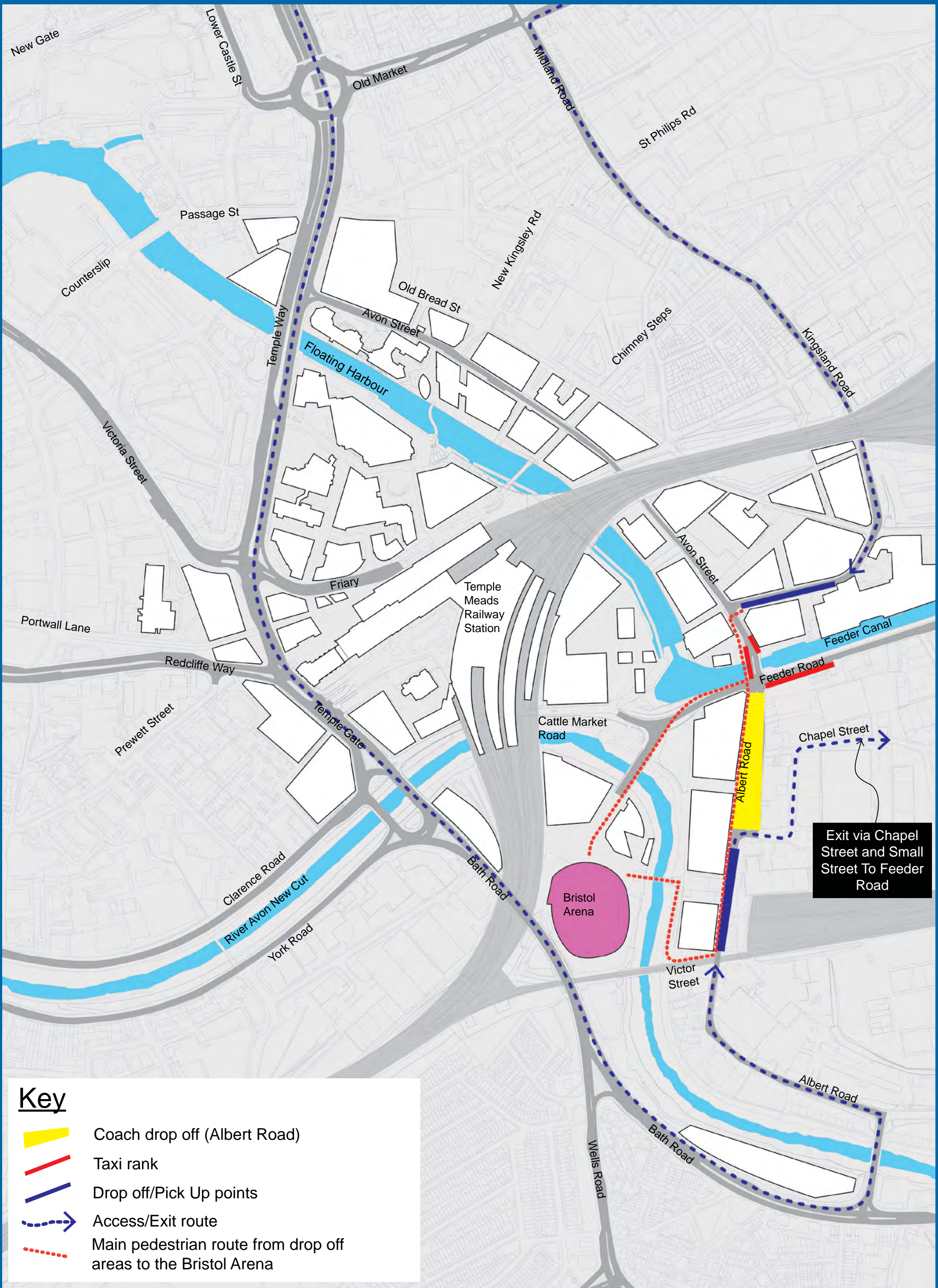
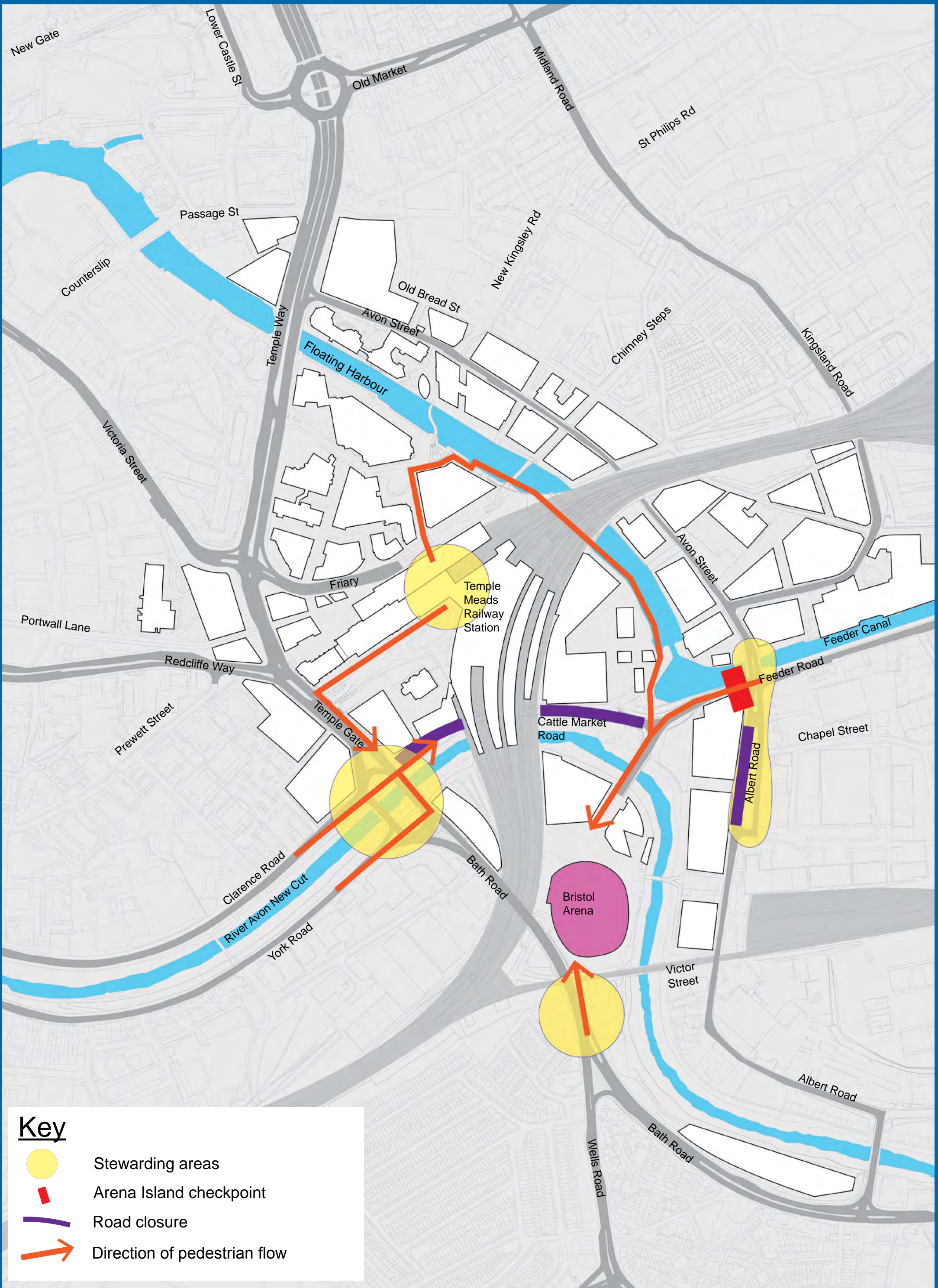
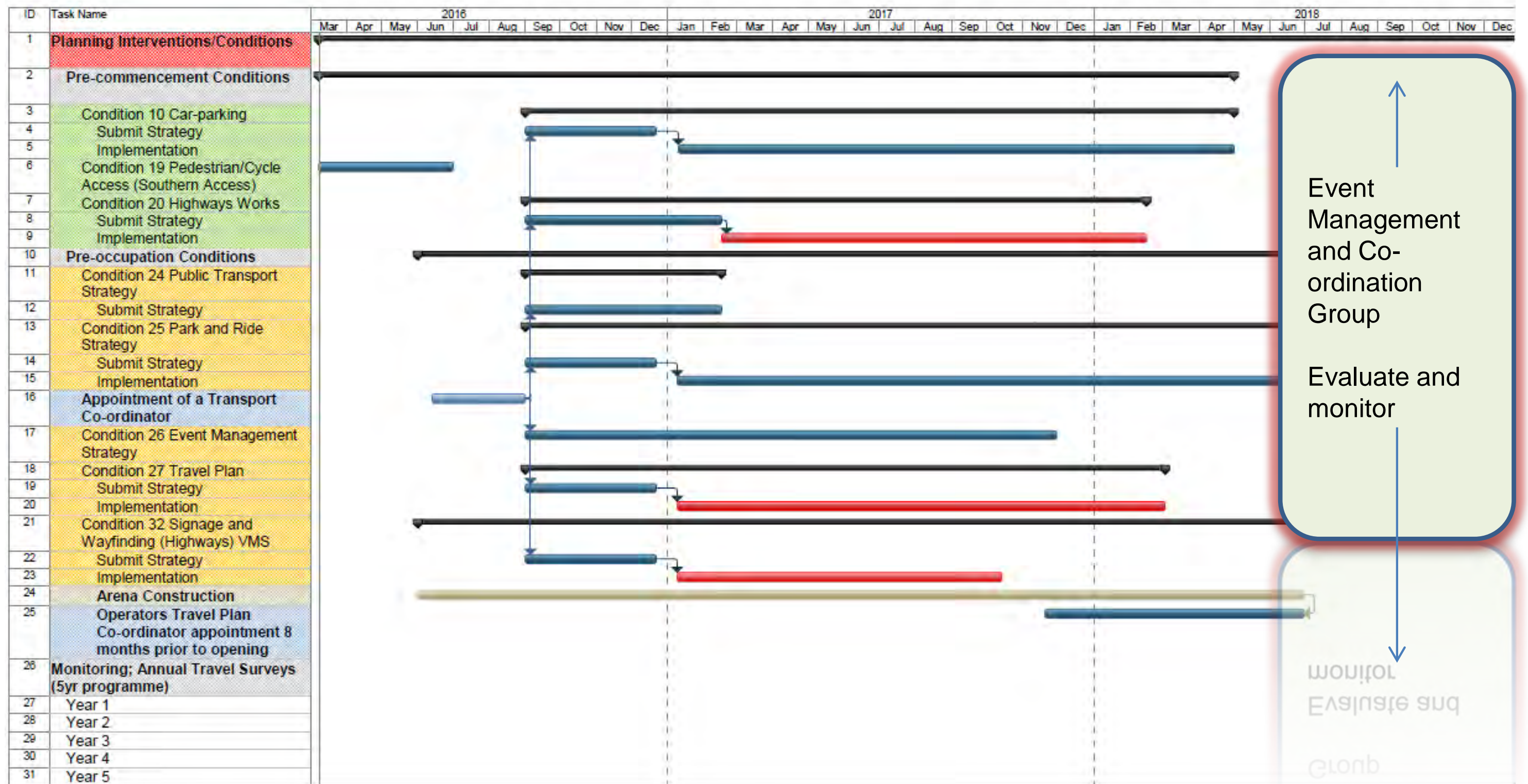


Fig 7 Drop off/Pick up areas









Bristol Arena: Planning Intervention/Condition Execution Timeline